

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application: John E. Archibald Jr et al : Group Art Unit: 2133
: Examiner: Joseph D. Torres
Serial No.: 09/872,386 : IBM Corporation
Filed: 06/01/2001 : Intellectual Property Law
Title: Storage Media Scanner Apparatus and : Department IQ0A/040-3
Method of Providing Media Predictive : 1701 North Street
Failure Analysis and Proactive Media : Endicott, NY 13760
Surface Defect Management

Assistant Commissioner For Patents

Washington, DC 20231

Sir:

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner For Patents, P. O. Box 1450 Alexandria, VA. 22313, on

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Bethany J. Fitzpatrick 7/9/04
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APPEAL BRIEF

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I. Real Party in Interest

The real party in interest is International Business Machines Corporation.

II. Related Appeals and Interferences

None

III. Status of Claims

Claims 2 and 7-9 have been Finally Rejected and are Appealed.

Claims 11-13, 17-26, 29, 30 and 41 have been Allowed.

Claims 1, 3-6, 10, 14-16 and 31-40 were previously Canceled.

Applicant attempted to cancel claims 27-28 and 42 in an Amendment after Final Action dated April 7, 2004, but the Examiner refused to enter this Amendment.

IV. Status of Amendments

An Amendment after Final Action was submitted on April 7, 2004. This Amendment attempted to cancel claims 27-28 and 42, and amend claim 2, in a formal manner, to comply with the Examiner's objection under 35 USC 112, second paragraph. The Examiner refused to enter this Amendment.

V. Summary of Invention

Claim 2 recites that a determination is made whether a region on a storage medium contains user data, and if so, the user data is copied from the region to a temporary storage location. After the copying step, an attempt is made to write a data pattern to the region of the storage medium, and then contents of the region are read back. Then, the data pattern is compared to the contents of the region which was read back to identify differences. If no difference was identified, then the user data is written back to the region. If a difference was identified, then the region is replaced with a new region for storage of data.

VI. Issues

Claim 2 was rejected under 35 USC 112, second paragraph because of the reference to "the first said region" in line 11. The Examiner asserted lack of antecedent basis for this limitation in the claim. Claims 7-9 depend on claim 2, and the 35 USC 112, second paragraph rejection of claim 2 was imputed to dependent claims 7-9. So, the issue is whether claim 2 was sufficiently definite.

Claim 2 and dependent claims 7-9 were also rejected under 35 USC 102 based on Yamamuro. So, the issue is whether these claims were taught by Yamamuro.

VII. Grouping of Claims

There is a single group of claims, i.e. claims 2 and 7-9. All the claims stand or fall together.

VIII. Argument

35 USC 112, Second Paragraph Rejection

Claim 2 was rejected under 35 USC 112, second paragraph because of the reference to “the first said region” in line 11. The Examiner asserted lack of antecedent basis for this limitation in the claim. Appellants respectfully traverse this rejection based on the following.

“The first said region” in line 11 of claim 2 refers to the first mentioned “region” in line 3. This terminology distinguishes this region from the “new region” in line 9 of claim 2. The terminology is clear, and the rejection under 35 USC 112, second paragraph should be reversed.

35 USC 102 Rejection

Independent claim 2 and dependent claims 7-9 were rejected under 35 USC 102 based on Yamamuro. Claim 2 recites that a determination is made whether a region on a storage medium contains user data, and if so, the user data is copied from the region to a temporary storage location. After the copying step, an attempt is made to write a data pattern to the region of the storage medium, and then contents of the region are read back. Then, the data pattern is compared to the contents of the region which was read back to identify differences. If no difference was identified, then the user data is written back to the region. If a difference was identified, then the region is replaced with a new region for storage of data.

Yamamuro does not disclose that user data is removed from the test area, then a test pattern is written to the test area, read back and compared to the test pattern, and if the test area is good, then the user data is returned to the test area. Rather, Yamamuro is concerned with initial manufacture of optical disks and recordings made at a factory on optical disks. Yamamuro discloses in Column 12 lines 42-62 that the test is made "at the manufacturing time or the initial time". In Yamamuro, at this stage in the testing, dummy data is written into the optical disk to test the quality of the manufactured disk, before any real data is recorded in the test area. So, unlike amended claim 2, user data is not removed from the test area to make way for a test pattern, and then returned to the test area if the test area is found to be good.

Yamamuro also discloses a test at the actual data recording time to determine if the data was recorded faithfully at the factory. See Column 14 lines 62-67 and Column 16 lines 37-49. But, this does not involve removal of user data from the test area to make way for test data. Presumably, the actual data recording made at the factory is read back from the optical disk and compared to the intended, known factory recording to identify errors. Therefore, Yamamuro fails to disclose a key feature of claim 2, and the rejection under 35 USC 102 should be reversed.

Claims 7-9 depend on amended claim 2, and therefore distinguish over Yamamuro for the same reasons as claim 2. The rejection under 35 USC 102 should likewise be reversed as to claims 7-9.

To prevent the Examiner from subsequently rendering a 35 USC 103 rejection and delaying the allowance of this patent application, Appellants request that the Board decide the issue of obviousness. The foregoing feature of claim 2 would not have been obvious in view of Yamamuro because Yamamuro teaches the comparison of recorded data to known data, and not removal of previously recorded, unknown user data from a test region to make way for known test data. There is no suggestion in Yamamuro to test data regions that contain previously written, unknown user data; rather, Yamamuro is concerned with testing data regions before they receive user data. At best, Yamamuro suggest a comparison of the user data with a true copy of

the user data, but that is not the present invention. Therefore, the Board is requested to rule that claim 2 was not obvious in view of Yamamuro under 35 USC 103.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Art Sam', is written over the typed name.

Arthur Samodovitz

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APPENDIX - CLAIMS

IX. Appealed Claims 2 and 7-9.

2. A method for testing a data storage medium for defects, the method comprising the steps of:
 - determining whether a region on said storage medium contains user data, and if so,
 - copying said user data from said region to a temporary storage location;
 - after the copying step, attempting to write a data pattern to said region of the storage medium, and then reading back contents of said region;
 - comparing said data pattern to said contents of said region which was read back to identify differences;
 - if a difference was identified, then replacing the first said region with a new region for storage of data;
 - if no difference was identified, then writing said user data back to the first said region.
7. The method of Claim 2, wherein the step of determining whether a region on said storage medium contains user data comprises the step of examining a sector written indicator.
8. The method of Claim 2, wherein the step of determining whether a region on said storage medium contains user data comprises the step of examining a sector stripe written indicator.
9. The method of Claim 2, wherein the step of determining whether a region on said storage medium contains user data comprises the step of examining a stripe written indicator.

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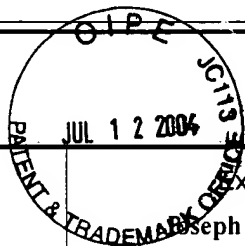
TRANSMITTAL OF APPEAL BRIEF (Large Entity)

Docket No.
SJO920000075US1

In Re Application Of: John E. Archibald Jr. et al

Serial No.
09/872,386

Filing Date
06/01/2001



Examiner
Joseph D. Torres

Group Art Unit
2133

Invention: STORAGE MEDIA SCANNER APPARATUS & METHOD OF PROVIDING MEDIA PREDICTIVE...

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TO THE COMMISSIONER FOR PATENTS:

Transmitted herewith in triplicate is the Appeal Brief in this application, with respect to the Notice of Appeal filed on
MAY 10, 2004

The fee for filing this Appeal Brief is: **\$330.00**

- ☐ A check in the amount of the fee is enclosed.
- ☐ The Director has already been authorized to charge fees in this application to a Deposit Account.
- ☒ The Director is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. **09-0457**

Signature

Dated:

July 9, 2004

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I certify that this document and fee is being deposited on **07/09/04** with the U.S. Postal Service as first class mail under 37 C.F.R. 1.8 and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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